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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,459	01/16/2004	Charles J. Cohen	CYB-05503/03	7720
7590	11/02/2004			
John G. Posa Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C., 280 N. Old Woodward Ave., Suite 400 Birmingham, MI 48009-5394			EXAMINER TABATABAI, ABOLFAZL	
			ART UNIT 2625	PAPER NUMBER

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/759,459	COHEN ET AL.	
	Examiner	Art Unit	
	Abolfazl Tabatabai	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on application filed on January 16, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 8 is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 16, 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla et al (U S 5,581,276) in view of Numazaki et al (U S 6,144,366).

Regarding claim 1, Cipolla discloses 3D human interface apparatus using motion recognition based on dynamic image processing comprising the steps of:

storing information relating to a plurality of gestures (column 14, lines 16-30);
imaging a gesture-making target (column 2, lines 20-25).

However, Cipolla is silent about the specific details regarding the steps of:

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comparing the target as imaged to the stored information to determine a control operation; and,

applying the control operation to the generation, selection, presentation, or movement of a map.

In the same field (operator interface processing) of endeavor, however, Numazaki discloses a system for generating information input using reflected light image of target object comprising the steps of:

comparing the target as imaged to the stored information to determine a control operation (fig. 35 element 342 and column 39, lines 36-41); and,

applying the control operation to the generation (fig. 2, element 103), selection (column 64, lines 41-30), presentation (column 51, lines 65-67), or movement of a map.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use comparing the target as imaged to the stored information to determine a control operation as taught by Numazaki in the system of Cipolla because Numazaki provides Cipolla a system for generating information input which are capable to realize the natural handling a high speed and low cost while improving the recognition accuracy by using the information other than the distance information.

Regarding claim 2, Cipolla discloses 3D human interface apparatus using motion recognition based on dynamic image processing wherein the target is a human hand (column 5, lines 1-4).

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Regarding claim 5, Cipolla discloses 3D human interface apparatus using motion recognition based on dynamic image processing wherein the recognized gestures are static or dynamic (column 16, lines 16-23).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla et al (U S 5,581,276) and Numazaki et al (U S 6,144,366) as applied to claim 1 above, and further in view of Marks (U S 6,061,0559).

Regarding claim 3, Cipolla and Numazaki are silent about the specific details regarding the step of generating a bounding box around the target.

In the same field (tracking objects) of endeavor, however, Marks discloses a method of tracking objects with an imaging device comprising the step of generating a bounding box around the target (column 6, lines 8-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use comparing the target as imaged to the stored information to determine a control operation as taught by Marks in the system of Cipolla because Marks provides Cipolla a system having a more intuitive user interface which may be used with video conferencing systems and the graphical user interface is used to track objects found in digital movies and computer generated images and

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla et al (U S 5,581,276) and Numazaki et al (U S 6,144,366) as applied to claim 1 above, and further in view of Rosenberg et al (U S 6,219,032 B1).

Regarding claim 4, Cipolla and Numazaki are silent about the specific details regarding the step of using an operator to find the edges of the target.

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In the same field (operator interface processing) of endeavor, however, Rosenberg discloses a method for providing force feedback to a user of an interface device based on interactions of a controlled cursor with graphical elements in a graphical user interface comprising the step of using an operator to find the edges of the target (column 2, lines 53-56 and column 65, lines 46-49).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use comparing the target as imaged to the stored information to determine a control operation as taught by Rosenberg in the system of Cipolla because Rosenberg advantageously provides Cipolla a system with force feedback to a user in conjunction with movement of a cursor in a GUI. This allows the movement of the cursor to be affected by the forces output the physical object manipulated by the user. Thus, the forces can assist in manipulating operating system functions of the GUI and/or inform the user of the GUI spatial "landscape" of graphical objects, providing more efficient GUI.

5. Claim 6, is rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla et al (U S 5,581,276) and Numazaki et al (U S 6,144,366) as applied to claim 1 above, and further in view of Redmann et al (U S 5,696,892).

Regarding claim 6, Cipolla and Numazaki are silent about the specific details regarding the step of the map is a weather map.

In the same field (operator interface processing) of endeavor, however, Redmann discloses a system for providing animation in a three-dimensional computer generated

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virtual world using a succession of textures derived from temporally related source images comprising the step of the map is a weather map (column 15, lines 46-48). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use map is a weather map as taught by Redmann in the system of Cipolla because Redmann provides Cipolla a system for enhanced graphics in an interactive virtual world environment and this system have applicability in the entertainment industry.

Allowable Subject Matter

6. The following is an Examiner's statement of reasons for allowance.

The prior art of record fails to teach or suggest, a transformation module operative to generate a command based upon the gesture identified by the identification module; and a system response module operative to apply to the command from the transformation module to generate, selects, present, or move a map. in combination into other features and elements of claim 7.

7. **Claims 7 and 8 are allowed.**

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Prior Art

9. The prior art made of record and not relied upon is considered pertinent to

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applicant's disclosure.

Higaki et al (U S 6,804,396 B2) disclose gesture recognition system.

Doi et al (U S 6,456,728 B1) disclose object detection apparatus, motion control apparatus and pattern recognition apparatus.

Freeman (U S 5,454,043) discloses dynamic and static hand gesture recognition through low-level image analysis.

Gard (U S 5,990,865) discloses computer interface device.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (703) 306-5917.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mehta Bhavesh M, can be reached at (703) 308-5246. The fax phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

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Patent Examiner

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October 27, 2004

A- Tabatabaie